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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,653

08/28/2003

Kaushik Rajashekara

DP-309036

7273

22851

7590

06/09/2006

DELPHI TECHNOLOGIES, INC.

M/C 480-410-202

PO BOX 5052

TROY, MI 48007

EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT

PAPER NUMBER

2835

DATE MAILED: 06/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**SUPPLEMENTAL  
Notice of Allowability**

Application No.

10/650,653

Examiner

Michael Rutland-Wallis

Applicant(s)

RAJASHEKARA ET AL.

Art Unit

2835

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/11/2006.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>05/11/2006</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                 | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

Applicant's information disclosure statement of May 11, 2006 was filed after the issue fee was paid. Information disclosure statements filed after payment of the issue fee will not be considered, but will be placed in the file. However, the application may be withdrawn from issue in order to file a request for continued examination (RCE) under 37 CFR 1.114 upon the grant of a petition under 37 CFR 1.313(c)(2), or a continuing application under 37 CFR 1.53(b) (or a continued prosecution application (CPA) under 37 CFR 1.53(d) if the CPA is for a design patent and the prior application of the CPA is a design application) upon the grant of a petition filed under the provisions of 37 CFR 1.313(c)(3). Alternatively, the other provisions of 37 CFR 1.313 may apply, e.g., a petition to withdraw the application from issue under the provisions of 37 CFR 1.313(c)(1) may be filed together with an unequivocal statement by the applicant that one or more claims are unpatentable over the information contained in the statement. The information disclosure statement would then be considered upon withdrawal of the application from issue under 37 CFR 1.313(c)(1).

### ***Allowable Subject Matter***

Claims 1-21 are allowed. The following is an examiner's statement of reasons for allowance: Thomas et al. (U.S. Pat. No. 6,160,722) teaches a system for transferring power comprising a first power source (item 10) having a first pair of terminals associated therewith; a second power source (item 460) having a second pair of terminals associated therewith (i) a first pair of switches (items Q1 and Q2) connected to the first pair of terminals, while Thomas utilizes BJT transistors It would have been obvious to one of ordinary skill in the art at the time of the invention to use MOSFET having a source, drain and gate terminals connected as claimed. Thomas teaches terminal of the lower switch (Q2) thereby forming a first common node, and wherein each of the first pair of switches has an anti-parallel diode associated therewith; (ii) a second pair of switches (items Q2 and Q3) connected to the second pair of terminals, wherein said source terminal of said upper switch is electrically connected to the upper terminal of the lower switch thereby forming a second common node, and wherein each of the second pair of switches has an anti-parallel diode associated therewith; (iii) a third pair of switches (items Q3 and Q4), said third switch pair comprising an upper switch wherein terminal of said upper switch is electrically connected to the upper terminal of the lower switch thereby forming a third common node, and wherein each of the third pair of switches has an anti-parallel diode associated therewith; (iv) a first inductor (item L1) a second inductor (item L2); and (vi) a control unit (item 440) configured to actuate the switches in the first, second, and third pairs of switches in accordance with one of a plurality of modes of operation for transferring power between at least a pair of said first,

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second. Thomas does not utilize three power sources nor does Thomas teach the limitations of the first and second inductors in the claimed connection. Nino (U.S. Pub. No. 20050218876) teaches a first inductor coupled between a first set of switches and a second set of switched but does not teach the second inductor or the additional power sources lacking in Thomas. At least for these further limitations to independent claims 1,8 and 15 are not taught or rendered obvious by the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

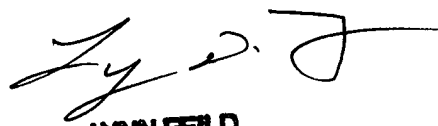
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRW



**LYNN FIELD**  
**SUPERVISORY PATENT EXAMINER**